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(54) Liquid composition laser marking article and marking process

(57) This invention relates to a liquid composition comprising an energy beam-curable resin, a leuco dye and a developer and has a viscosity of not more than 20 cps as measured by an E type viscometer at 60°C, a laser marking article having a cured film of the liquid composition, a process for producing a laser marking article, characterized by coating the liquid composition on the surface of an article by a spray coating method and then irradiating the coated article with an energy beam except laser, and a laser marking process characterized by irradiating the cured film layer formed on an article with a laser beam. According to this invention, there is obtained an energy beam-curable, liquid composition for laser marking suitable for spray coating and gravure printing without using a solvent or dispersing agent, and the cured film of this liquid composition has little discoloration of the ground, a good adhesiveness to substrate, and when it is irradiated with a laser beam, the portion irradiated develops a vivid black color which is excellent in fastness.

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EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
D, X	WO 96 00262 A (NIPPON KAYAKU)	1-14, 17-20	B41M5/36 G03F7/105
Y	* page 4, line 1 - line 10 * * page 6, line 12 - page 7, line 17 * * page 10, line 19 - line 21 * * page 15, line 23 - page 16, line 19 * * page 19, line 10 - page 20, line 20 * ----	15,16	
Y	EP 0 659 583 A (NIPPON KAYAKU) * page 3, line 45 - line 46 * * page 4, line 10 - line 19 * * page 5, line 57 - page 6, line 8 * * page 6, line 51 - page 7, line 2 * * page 8, line 49 - line 53; claim 1 *	15,16	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
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			B41M G03F
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	31 October 1997	Magrizos, S	
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			